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ABSTRACT

A variety of head-mounted aids have been developed in the past decade to fill in the functional gaps of children and adults unable to use their hands at standard capacity. For those with speech difficulties, the optical pointer, headstick and mouthstick also provide communication alternatives. This handbook discusses the characteristics of several of the options, along with suggestions for their implementation. At play, a handicapped child may use a headstick for painting, role-play games of hide-and-seek, or simply to interact more freely with toys that have been appropriately modified. Optical pointers may be useful in games of hide-and-seek, or may be used to direct an aide's hands in playing with dolls and other toys. Board games and electronic/computer games are also well suited to play with headsticks and pointers. Modifications can also integrate a magnetic stick into many common games. For communication, head-mounted aids can be used to operate electric typewriters and alphabet boards. In the classroom, textile handicrafts and music can be performed through use of head-mounted aids, and even such complex kitchen tasks as peeling potatoes, beating ingredients and glazing can be performed with a headstick and attachments. Several pages of pictures illustrate techniques for work, play, and creativity using head-mounted aids. (PB)

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ACTIVITIES USING HEADSTICKS AND OPTICAL POINTERS

A Description of Methods

Foreword

In 1982 the Swedish Institute for the Handicapped issued the product information sheet, 'Head-mounted Aids', a list of headsticks/wands, helmets, optical pointers and mouth sticks for use as aids in work and in communication.

This publication, 'Activities Using Headsticks and Optical Pointers' is now issued by the Swedish Institute for the Handicapped as a supplement to the earlier publication. It is intended as a practical guide in the use of this type of aid.

Magnus Magnusson, Speech Therapist

Introduction

It is important to give all people the opportunity to develop their emotions, their motory systems, their intellects and their senses. When it comes to handicapped children, this goal can only be attained with the help of parents, minders, and experts in teaching methods, who are alert to these issues and who can bring to bear a wealth of inventiveness and initiative.

Aids designed to be fixed to the head have been developed during the last decade. Inter-disciplinary co-operation, involving a number of professions and crafts, has helped to co-ordinate technology and practical work in the testing of new ideas. As a result we can choose today from a range of headsticks and helmets. Since in many situations these aids take the place of the user's hands, a wide variety of demands are placed upon them. Some activities require strength, weight and stability, while others require a light, deft touch. In other words there is a need for a wide range of aids. Just as we developed different skills with our hands, the child must be given the opportunity to master the use of a headstick. In order to develop, a child needs to associate with other people, and it needs to be able to communicate with them. Many children who need head-mounted aids also have speech difficulties and require some alternative method of communication. In these cases, the optical pointer, the headstick or the mouthstick can be suitable aids to use.

In order to develop these head-mounted aids so that both children and adults can use headsticks to manage most everyday activities, it is essential to have a knowledge of materials, the area of application, and working methods. Furthermore, good results depend almost entirely on having these aids adjusted at frequent intervals so that the user does not stagnate, but will become inspired to make further progress. This book contains suggestions on ways that the headstick and optical pointer can be used in everyday situations such as games, hobbies, music and activities in the kitchen. We hope that they will inspire people to develop new ideas, so that the number of these activities will increase. We would like to emphasize how important it is for children to take part in games and everyday activities at an early age so that if possible, they can share the same experiences as other children of the same age.

Even before a child is old enough to use for example a headstick, efforts should be made to modify toys and place them within the child's reach, in order to stimulate the child's desire to use all its senses in exploring its surroundings. Head-mounted aids can give the child the chance to take initiatives of its own, and to play without having to rely on others for help.

Introducing and testing the aids

It may be difficult at first both for the children themselves and for the people in their lives to accept head-mounted aids. A child may have got used to playing with its hands from having adults help to control its arm movements. It is easy to feel that the use of an optical pointer and headstick give inferior results, and it may be difficult to accept that it is impossible for a child to develop its hand functions sufficiently to do everything this way. A great deal of patience and playful practice is required to change these attitudes and let the child experience for itself the joy of achieving something without help. It is important that the child uses its hands or feet to supplement the optical pointer and headstick in other activities that require less precise motory activity, so that the child has the maximum possible scope for development.

When a handicapped child needs an aid for work or play, a thorough preliminary assessment of the motory system is essential. The following points are important in this context:

- Does the child have a stable work position?
- Does the child use any part of its body spontaneously?
- How well can the child use its head, hands and feet to point and in co-ordinated movements, and what range of movements can it perform?
- How do different activities affect the pattern of movement?
- What is the child's own perception of different work situations?

Other handicaps, for example impaired sight and loss of peripheral vision may also influence the choice of head mounted aids.

The Work Position

The child must have a good working position if head-mounted aids are to be used. We use the term 'good working position' to mean, for example, individually modified sitting positions. It is important to examine the child's trunk mobility. Some children use movements of the trunk to give them a wider reach with their heads, while other children may need to be fixed at several points to give them a stable sitting position and thus improve head control. A good working position may be a sitting position, standing up, or a reclining position—for example lying back on a car seat cushion.

The Work Surface

It is always easier for the child to use head-mounted aids with a height-adjustable table and chair. In some activities the table must be tilted, when using a typewriter for example. Children with limited head and trunk mobility often have to have a tilted work surface in order to see the materials they are working or playing with.

Note that the distance between the child and the tilted surface should be kept to a minimum.

It is important that the material is fastened to the table, e.g. with non-slip cloth, clamps, magnets, or in recesses in the table.

For some activities it may be practical to place the materials on some kind of turntable or rotating board.

The Helmet

The different activities in which headsticks and optical pointers are used require a stable helmet. One kind of helmet for use with an optical pointer may be light and easy to put on and take off. This helmet does not have to meet high standards of stability.

On the other hand, a helmet to be used for typewriting or with a magnetic stick or pointer needs to be more stable.

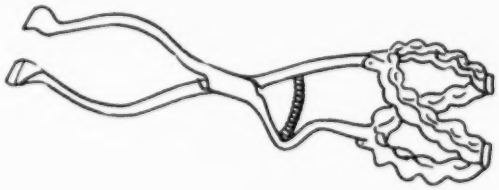
A helmet suitable for household activities needs to be very stable and rugged in construction. It may be difficult to find a single helmet that is suitable for all of these activities.

The Stick

Some users need an angled stick, while a straight stick is best for others. The length of the stick is decided, among other things, by the natural focus point of the eyes, control of head movement, and the degree of mobility in the trunk. A very small head movement makes the stick travel quite a distance. The longer the stick, the greater this effect will be. The stick may be mounted in several ways; on the forehead or chin, or held in the mouth.

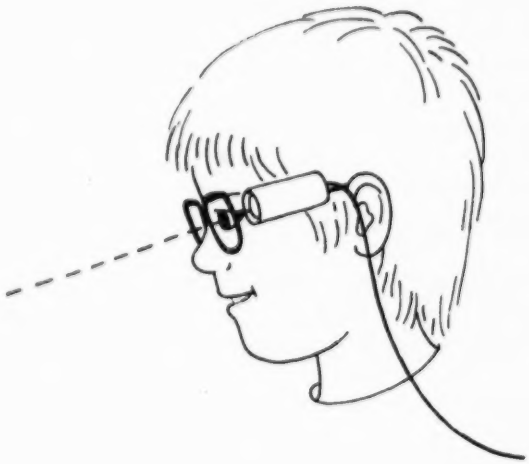
Mouth Tongs

Mouth tongs allow the child to grasp objects, which opens up more opportunities to be active. As with the mouth stick, the tongs require the user to have good control of the head movements so that teeth and mouth do not become overloaded. Both the mouth stick and mouth tongs prevent the child from speaking at the same time.



The Optical Pointer

The optical pointer may be attached to a simple helmet, a headband or to a pair of spectacles. It can be fixed at the centre of the head, or on one side. If the lamp is fixed to the side of the head, one must take into account the child's primitive reflexes, such as the ATNR, which should not be reinforced. The lamp should be mounted so that the light beam follows the direction of the child's eyes.



Play

It is important that the child can use a headstick or optical pointer to play. Games may be helpful in planning appropriate training schedules. The child must be given the opportunity to play the same games as other children. To begin with, simple activities should be chosen which produce rapid results and stimulate the child to play and which, by being suited to the child's level of development, ensure that the child has a positive experience. Games and play materials can also be used in structured training, for example in training different conceptions.

Playing with a Headstick

At first, children using a headstick often need a lot of help from an adult before they can play. The adult must be alert to the motivation of the child and its spontaneous initiatives when at play. It may also help to have the doll, teddy bear or other people wear helmets too. 1 *

An all-purpose socket fitted to the stick makes it easy to attach different instruments as well as paintbrushes, magnetic sticks and pushers.

Painting is a simple and pleasant activity that produces visible results—multicoloured dots, lines and curves that usually give the child a lot of pleasure. 2

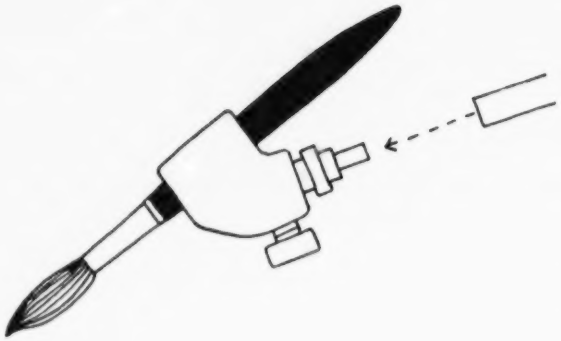
Children do not need a great deal of precise control to catch fish in a "pond". A magnet is fixed to the headstick and the fish have paper clips or small metal strips attached to them. 3

The child can also play with **water and sand**, by fixing a measuring spoon, a spade or a similar attachment to the headstick.

People using headsticks can also take part in most **role-play games**, e.g. playing shopkeepers, pressing the cash register keys, playing at housekeeping, stirring the pot, laying out a doll's tea service etc. It is important to help children play with ordinary toys and join in games with other children.

Modified toys and materials help to vary the degree of difficulty and precision in play. For example, small animals, dolls, dolls' house furniture etc. may be fitted with metal tacks which the child can pick up with a magnetic stick, so that they can join with an adult in telling stories, building a zoo, playing with a dolls' house etc. A wide range of battery-powered toys are available in the shops today, many of which can be modified so that the child can use a headstick to press the buttons that control the toy. A modified train set gives an infinite number of combinations, opening up limitless opportunities for stimulating games.

* Numbers refer to illustration on pp 8–9.



Playing with the Optical Pointer

The optical pointer may be used in a variety of activities. With a little imagination, most of the games children play can be modified to allow a child to join in with the help of an optical pointer. The difference is that a handicapped child using an optical pointer cannot perform all the necessary actions without help. Instead, the child uses the optical pointer to indicate what is to be done, and someone else must act as the child's hands. The most important factor, however, is that the child can use his/her own initiative and decide him/herself how to play the game. It is also important that these children can take as active a part as possible in play with other children.

The following are examples of activities that can be modified for the optical pointer user:

Orientation games. The child shines the optical pointer where he/she wants to be driven, which door to look through, or at the cupboard or shelf where the object he/she wants is to be found. There is an infinite number of variations on this theme. Many good examples are to be found in the kitchen, where the child can point out what things are needed for cooking, and where they can be found. 4

Hide-and-seek. Someone hides and the child indicates with the optical pointer where to look. There are many variations on this game, for example 'I-spy', and other guessing games. In other versions, objects are moved, or one of the players changes

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clothing, and the child tries to see what changes have been made, and uses the optical pointer to show what these changes are. [5]

Playing with dolls. The child uses the optical pointer to pick out dolls clothes and show what the doll is to do. The optical pointer can be used in play with both large and small dolls, and even with paper dolls. Playing with a dolls' house is also a good game, in which the child chooses furniture and uses the optical pointer to show how the furniture should be arranged and what the doll family is to do. [6]

Cars, traffic games. The child picks out toy cars and uses the optical pointer to show where the cars should drive and park.

Drawing and painting. Children who cannot use a headstick to draw and paint can use an optical pointer to choose colours and show how the drawing should be done.

Books and picture materials have many different applications, from simple picture books to material that a child can use to make up stories by pointing at different pictures. It is important that non-verbal children also have the opportunity to use their imaginations. Optical pointers are also useful with other exercise material, e.g. for language training. [7].

Building games. The child can play with building blocks, Briomec building sets and other building games by using the optical pointer to point out pieces and show where they are to be placed. More advanced children can follow the instructions to build lego models.

Board Games etc

Everybody can join in playing board games. There are games for one player only, games for large groups and games for different age groups. There are many traditional games, for example Tic-Tac-Toc, but we should not forget the new electronic games. [8] Children probably feel that it is important to play the new games that are popular at the moment. This category of games tranis both intellectual and physical functions, helps develop the motory system and—not least—helps children to associate with each other.

Games should be chosen that are interesting for the children and that suit the level of their intellectual and motory development. It is a good idea to grade the games on a scale by the degree of motory development they require, and then let the children choose from the games they can manage, or more difficult games that will develop the motory system.

Games and the Optical Pointer

All games can be played with the optical pointer without requiring any modifications. The child can choose which piece to move and where to move it without any help. However, someone must help move the pieces. Children with poor control over their head movements may find it easier to use the optical pointer to indicate the piece to be moved, if the pieces are some distance apart.

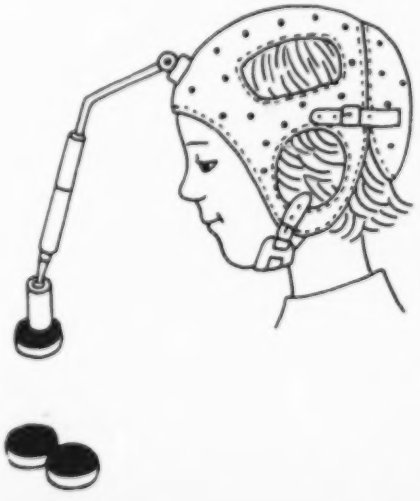
Games Using the Headstick as a Pointer

The games that can be played with an optical pointer can also be played by using a headstick as a pointer. Usually, no modifications at all are needed for the child to use a headstick to point out the pieces in a game. But the child's reach is far shorter with a headstick than with an optical pointer, and for that reason the gameboard should not be too big.

Many computer games can be played with a headstick. Depending on their design, which varies a great deal, keyboards and other controls may need to be modified.

Games Using a Magnetic Stick [9]

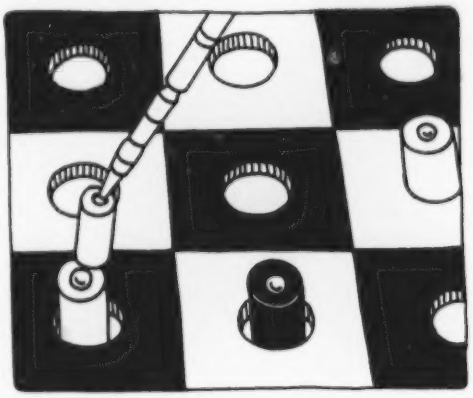
A helmet need not be so firmly attached and stable for playing games as for other activities; but the headstick design is important, particularly when using a magnet. The strength of the magnet should suit the weight of the pieces to be picked up and the head movements the child will need to make. A strong magnet will attract lightweight pieces and



the child will find it difficult to get them off the stick. Heavy pieces need strong magnets, or the pieces will fall off at the slightest head movement.

The magnet should be attached to the headstick with a ball joint, so that the magnet is always in the same position in relation to the pieces, whatever the child's head movement may be.

A magnetic stick opens the door for children to play board games without needing any help at all. The games must be modified for use with a magnet, but this is often simply a matter of fitting metal tacks or paper clips to the pieces. When modifying a game, it may be a good idea to consider what levels of difficulty a game can give. Many variations can be introduced; some ideas and hints are listed below.



Modifications

At first, it is easier to pick up the pieces. Memory, Lotto and other games that are played like this are therefore suitable for beginners. The rules of some games can be changed so that the pieces are taken off squares instead of being put down on them.

It may be difficult to get the piece off the magnet. A non-slip cloth or a raised table edge may help. The hardest action is putting the piece in a particular place. It often helps to drill holes in the gameboard. The level of difficulty of the game is then determined by the size of the holes and the distance between them.

The game board should be firmly attached to the table, possibly with clamps.

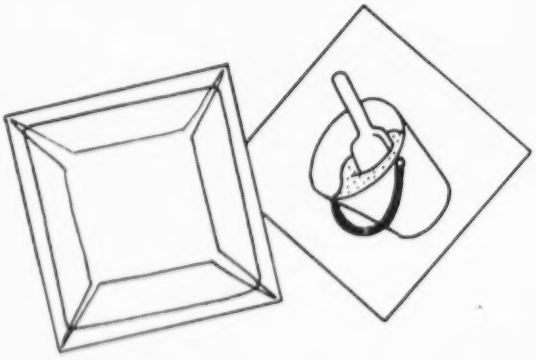
Games using paper figures may need **metal strips,** cut to size and fixed to the back of the figures, giving a bigger contact surface for the magnet. The game then demands less precise movement control, which will be good for beginners.

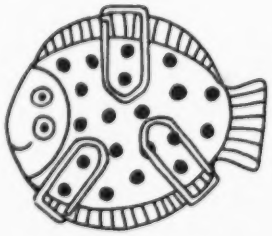
Paper clips can easily be attached to **all** kinds of paper shapes.

Tintacks, paper fasteners and metal tags can be fixed to wooden pieces or jigsaw puzzle parts.

It is easier to play a game that has large holes placed well apart than a game with small holes close together. It is more difficult to place pieces that are not round; for example, the most difficult game is a jigsaw puzzle, because the pieces must be placed in exactly the right positions.

The following will help to loosen pieces from the magnet: **Non-skid cloth** on the table will stop the pieces gliding. A **magnetic board** that attracts the pieces. A **box or raised edge,** to help pull the pieces off the magnet. A **frame** with edges can be used in playing games like Memory, where the cards have to be placed in a particular position.





Communication

Head-mounted aids can easily be modified for use with communication aids. Both headsticks,[2] mouthsticks and optical pointers allow the child to quickly and accurately point out the right picture, symbol or letter of the alphabet. When testing verbal communication aids with children with speech difficulties who also have limited hand mobility, the option of training the child to use head-mounted aids should be considered. This also applies to children who do not have full control of their head movements, since this function will often improve with training.

Head-mounted aids may often be used in combination with sophisticated technical aids, because a child often needs different communication aids in different situations.

Some children need a great deal of training in the use of head-mounted aids. It may take a child a long time—perhaps more than a year—before he/she has acquired enough control to be able to point at small Bliss symbols or use a typewriter. Therefore the child should train head movement control in a pleasant way, for example by using the methods described above, so that the training is enjoyable and a positive attitude develops towards the aids he/she needs to use.

In the early stages one should try to avoid training the use of the optical pointer with Bliss, or using the headstick with a typewriter, since both activities demand a high degree of precision, and there is a risk that, by failing, the child will develop a negative attitude towards these aids, and this may mean that the child will reject both headmounted aids, the Bliss system and the typewriter.

Early Communication

The optical pointer can be used as a communication aid long before it can be combined with other methods of communication. With the aid of the optical pointer, the child can interact with his/her surroundings in a different way, e.g. by pointing out who he/she wants to talk to, what objects are wanted, or where the child wants to be driven. It is particularly important that non-verbal children are able to make their own choice of alternatives. The ability to take initiatives, and make choices and decisions for oneself is essential for all communication and the child must be given the opportunity to train these functions as early as possible in its development.

Alternative Ways of Communicating

The **optical pointer** may be used with different methods of communication, e.g. pictures, Bliss symbols and alphabet and word boards as soon as the child has mastered sufficient motory control.

The **headstick** and **mouthstick** may be used both for communication and with various writing aids. This requires a high degree of control of the head movements, and preliminary training at play and by using board games is often necessary. The most common writing aids are **electric typewriters** and the **Canon Communicator**. Another successful combination is a mouthstick used with an **alphabet board**.

The headstick and mouthstick can also be used with other control panels, e.g. computer's. Even children who have both speech impediments and physical disabilities should be allowed to keep abreast of the rapid advances in the field of data technology.

Classroom Activities

Working in the Classroom

Both headsticks and optical pointers are very useful in schoolwork. The important factor to keep in mind is not to make too many new demands at one time. Each system should be trained separately and then put together when the pupil is ready.

The **optical pointer** is used as a communications aid (see the section on communication) in all subjects on the school curriculum. For example, in geography – pointing out countries etc. on a map. 1 * In Swedish – pointing out letter to make up words. In mathematics – doing sums and indicating the right answer. There are many variations.

In schoolwork, the **headstick** is perhaps most frequently used with electric typewriters 2 and/or desk calculators. Keyboards should be fitted to this equipment, as they make it easier to press only one letter/number at a time with the headstick. A tilted work surface makes it easier to reach every key on the keyboard, and it is also easier to see the letters.

The headstick user can use all types of keyboard, push-button system and teaching aids, and the only thing to keep in mind is that the keyboard should be small enough for all the keys to be within the student's reach.

Headsticks/mouthsticks work well as page-turners when fitted with a rubber tip. 3

The **magnetic stick** is very useful when the student has to carry out tasks unaided. 4

Several kinds of activity game only need to be modified with paper clips. (Esselte Studium.)

Home-made tasks may be placed in a frame.

If schoolwork includes several operations a turntable of the type described in the section on WORK may be useful.

The external ergonomic requirements for using a computer at school are almost the same as for any other work at a keyboard. The decisive factor lies in producing good programmes that are based on a sound educational theory. One should consider writing-in delay periods to compensate for the time it takes for handicapped people to carry out movements, for slower motory systems etc. At the moment there is a serious shortage of software suitable for use in Sweden. There is, however, some development of the Desk-80 system in the BASIC programming language. This system uses either a joystick or other types of control. 5

* Numbers refer to illustration on pp 14–15.

Textile Handicraft

The things that a child can do without help in handicraft classes need not always result in a finished product. As an assistant, one must often use imagination and find some way of assembling the work the child does.

The pupil needs a strong, stable helmet and stick for most activities in handicraft classes. When using a magnet, one must make sure that the magnet is strong enough to hold the object throughout the work operation. Always make sure that the work is firmly fixed to the work surface, e.g. with weights of clamps. 6

Less precise motory activity such as pressing a sewing machine pedal may be easier to do with some other part of the body, and the child must then be given every opportunity to make the best use of this mobility, possibli by using a headstick. 7 8

The optical pointer will allow the child to decide on colours and materials to be used, and take part in the work in other ways. 9

Suitable Materials for Textile Handicraft Classes:

Bookholders, weights, non-skid cloth, clamps, velcro tape, sewing frames, special scissors.

Picture Weaving

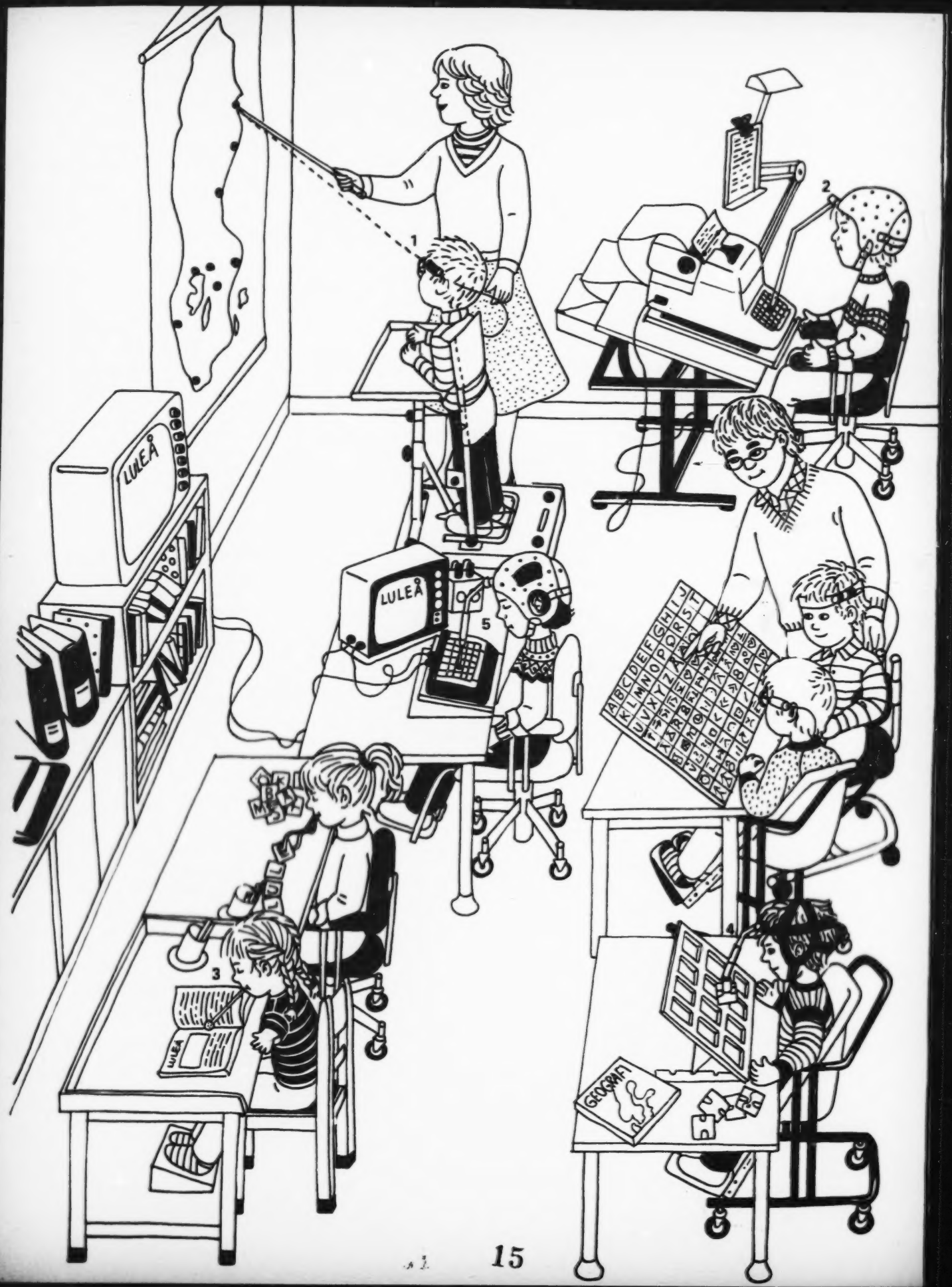
For weaving, the pupil needs a stable helmet and a magnetic stick. It is a good idea to have the child paint a picture that can be used as a pattern for the weave. The drawing is put in a plastic folder and fixed on to the frame under the warp.

Carpet warp is used in an adjustable frame, with at least 2 cm. between the threads. The weft is woven in with a pointed wooden pin about 12 cm. long. Carpet rag or coarse wool are suitable as weft.

Embroidery in a frame

A stable helmet and a magnetic stick are required. The square weave is stretched on an adjustable frame and is sewn with a rya pin.

The child can begin by simply sewing up and down, quite spontaneously, and then go on to sewing a pattern.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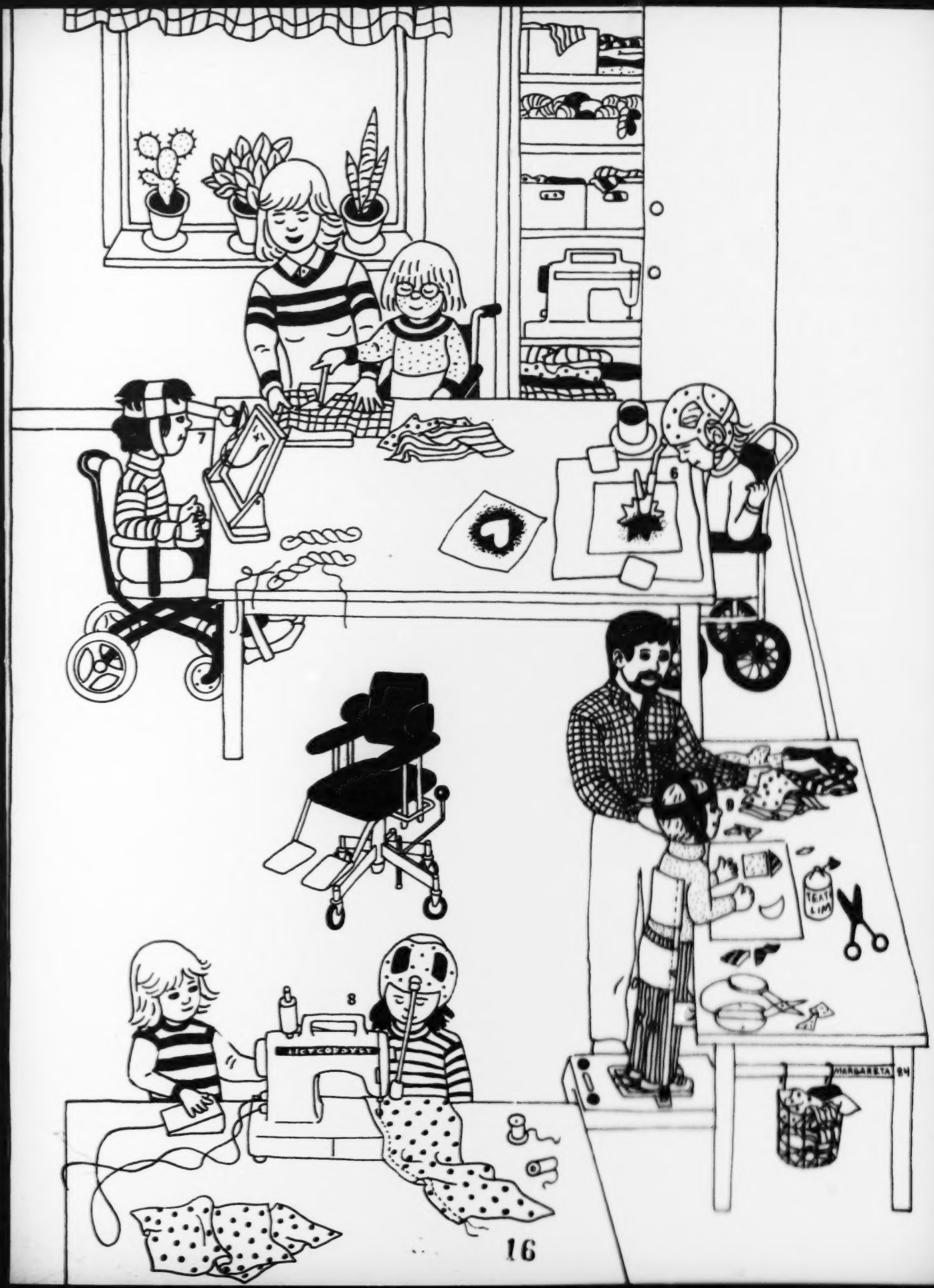
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The Sewing Machine

The sewing machine must be placed on a high table and should have special controls, fitted with long levers. It is a good idea to fit a length of expanded rubber pipe to the footpedal to make it easier to use.

Some children can manage to operate the pedal by hand and control the cloth with a headstick.

Textile Printing

Linoleum tiles with different pattern can be used to print onto cloth or paper.

A metal tag or a strip of Velcro tape is fitted to the linoleum tile so that a magnetic or velcro-tipped headstick can be used.

Stencilling on Cloth or Paper

A stencil template is fastened to the cloth nor paper (remember to protect the surrounding material from splashes).

Using a brush or sponge attached to the stick, the child stencils a patterns onto the material.

Appliqué

The children may be able to cut out appliqué pattern on their own, using special scissors. The child can move the material with a stick tipped with expanded rubber to stop the material slipping. The child may need help in applying the glue to the paper, but can then dip the sponge rubber tip of the stick into the glue and spead it on to the appliqué form. Either the child or a helper can position the appliqué. The child then cleans the glue from the sponge rubber tip and then presses the form into position.

Music

There is a lot to playing music. First and foremost there is the feeling for music, and the pleasure of playing music with other people—the list is almost endless.

The sense of rhythm and motory control in playing can strengthen the child's awareness of its own body and improve the speech ability.

As a form of expression, music can also be a way of establishing contact with others without needing

speech and language—music is a language of its own and provides an alternative means of communication.

Finally, music is an activity in which everybody can take part, because there are so many different instruments to choose from. This means that everybody in a class/group can take part in daily sessions and also provide entertainment at end of term ceremonies etc.

Instruments

Suitable instruments are tubular bells, drums, cymbals, triangles, rhythm sticks, miniature electric organs (with or without automatic base, rhythm and chord systems), chimes and xylophones. The last two are less suitable because it is difficult to make up-and-down movements with a headstick, which means unsatisfactory sound may be produced because the instrument is muted by the stick.

Miniature "electric organs" of the Casio brand (VL Tone, etc.) are relatively new, but they have proved themselves suitable for many handicapped children, and both the quality of sound and the durability of the instrument are good. This instrument may be programmed with a number of tones that can be played back in sequence in a real melody rhythm by repeatedly pressing a single key. Tunes can also be programmed in and then played back by pressing one button once.

If the automatic system is turned off, the instrument can be played like an ordinary electric organ. The keyboard is labelled with numbers: the tone C = 1, D = 2, etc.

Placing the Instruments

The instruments can be placed on height adjustable tables and stands and attached with special fastenings that are easy for the users to handle. Accessories may be attached to the headstick with clamps, rubber bands and velcro tape.

Headstick, Hands or Feet

Some children may be able to play with their hands or feet instead of using a headstick. This is a possibility that we sometimes forget to test when the child uses a headstick for other everyday activities. If this is the case, there are other ways of helping a child to "hold" a drumstick, rhythm instrument etc. In some cases a piece of brass attached to a strip of cloth may be easier to use as a drumstick and with other percussion instruments.

In the Kitchen

Using a headstick limits the child's possibilities of examining and handling things, but there is plenty to do in the kitchen, where pleasant and meaningful activities can be shared with other children or with adults.

Many skills need to be called into play to go from the idea of cooking something tasty to sitting down and enjoying a meal together—the motory system, perceptual senses and intellectual powers all play their part. Deciding what to cook, choosing the recipe, planning the shopping, accounting for the expenditure, planning the timing of the cooking, and the actual act of preparing the dish.

The ingredients must be weighed, measured, cut, mixed, beaten, shaped, brushed, turned, and fried, boiled or baked at the right temperature and for the right length of time.

The headstick must be strong enough to take utensils, and the helmet must be firmly fixed on the head.

An optical pointer gives a child a chance to take part in cooking. Recipes can be chosen, the ingredients can be pointed out, the sequence of events can be agreed, times checked, etc.

And everybody can join in the sequence of preparing the ingredients, what ingredients are to be added, what the dish looks like, how it smells and what utensils are needed—and finally how the dish tastes.

A headstick user needs a lot of help when working in a kitchen. But he also needs to use imagination and inventiveness—it's surprising how much one can actually do.

Beating ingredients requires strength—mixing all the ingredients together can be an arduous task.

Putting the mixture into baking forms requires both strength and coordination—but the appetizing smell and the anticipation of the results gives you the strength to finish the job.

A light brushing with glaze is the finishing touch.

Peeling potatoes requires concentration, co-ordination and strength.

Are the meatballs going to be large, small, round or egg-shaped—that depends on knowledge, will, the mixture and the utensils. Whatever the shape, the smell is good.

Turning and lifting meatballs while they are frying requires considerable skill in using a headstick. But they always taste good when you know what the ingredients are and how they have been made.

Here we are enjoying the results of our culinary efforts.

The booklet was originally published in Sweden and has now been translated into English as an activity of IPCAS, the International Project on Communication Aids for the Speech Impaired.

Aids designed to be fixed to the head have been developed during the last decade. Inter-disciplinary co-operation, involving a number of professions and crafts, has helped to co-ordinate technology and practical work in the testing of new ideas. As a result we can choose today from a range of headsticks and helmets.

In order to develop theese head-mounted aids so that both children and adults can use headsticks to manage most every-day activities, it is essential to have a knowledge of materials, the area of application, and working methods. Headmounted aids can give the child the chance to take initiatives of its own, and to play without having to rely on others for help.

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